

Buffalo-Niagara Green Map System: Retracing Olmsted Park Systems Using GIS

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1. INTRODUCTION

Urban greenways are crucial to the ecological health of a city and its region. They should be preserved and protected. Today the legacy the Fredrick Law Olmsted urban parks and greenway systems in the Buffalo-Niagara region's is fragmented by new roads, houses and commercial uses leaving it unable to perform many of the ecological processes vital to the health and functioning of urban ecosystems. Particularly the viability of the Olmsted Parks has been neglected since the 1950's due to poor planning, shortsighted politics and economic stagnation. Taken as a whole, significant damage has been done to the integrity of Buffalo's parks and parkway systems, as they do not retain many of their original design qualities. The neighborhoods surrounding the Olmsted parks, once home to some of most prosperous Buffalonians at the turn of the century, have destroyed due to demographic changes, gentrification, destructive and irrelevant modes of access, and poorly planned commercial development. With only a few areas maintaining their original character, most neighborhoods are rated as the worst in the city with the majority of the households below the poverty level. In particular, this is seen in Lower East Side neighborhoods adjacent to the Martin Luther King, Jr. Park (MLK). This park is one of the Olmsted's first three parks, formerly known as Humboldt Park, surrounded by some of the most significance historical buildings in Buffalo.

2. BACKGROUND

Buffalo, New York is the home to America's oldest coordinated systems of public parks and parkways, designed by the renowned landscape architect Frederick Law Olmsted (1822-1903), in concert with his partner Calvert Vaux and other subsequent partners. Olmsted's pioneering design for Buffalo consisted of three public grounds: a very large park featuring a naturalistic landscape in Delaware Park; a public ceremonial space in MLK Park; and a military drill ground in the South Park, all of which were connected by broad "parkways" which excluded all commercial traffic and extended the park experience throughout the city. Olmsted began his work in Buffalo in 1868, and continued to design public grounds for the rapidly expanding city's Board of Park Commissioners during the remainder of his career.

The Humboldt Park neighborhood, which today is the site of the Martin Luther King Park, and other neighborhoods comprising the Masten District, was built over a twenty-year period starting in 1869 when Fredrick Law Olmsted was commissioned to design a park systems for the city of Buffalo. The Olmsted systems consisted of Delaware Park and Humboldt Park linked together by the Humboldt Parkway, who served as the eastern boarder to the neighborhood. The first component of the systems named the "Parade," (located at the current proximity of Fillmore Avenue and Best Street) was built in 1871 to accommodate military drills and public gatherings. Later, Olmsted, between 1876-1898, redesigned the park adding three water features, giving it a new character within the framework of the original design. Olmsted added two more parks Delaware and Front, each having a different function. The Parade, which later took the name Humboldt Park, was linked to Delaware Park by Humboldt Parkway. A number of institutions were constructed within its boundaries including Buffalo General Hospital, Deaconess Hospital and Sisters of Charity Hospital, Canisius College, Offermann Stadium, Roesch (later War Memorial) Stadium, and the region's only science museum was constructed in Humboldt Park (now Martin Luther King Park).

After World War II, a conflux of several forces altered the character of Hamlin Park neighborhood.¹ In 1960, a massive negative change impacted the park when the city's new arterial highway systems cut a swath through old neighborhoods. The eight rows of stately trees in 200 foot wide Humboldt Parkway were cut down for the construction of the Kensington Expressway in April of that year. What had been a broad and more than three miles long extension of parkland stretching all the way to Delaware Park became instead a concrete highway separating neighborhoods on either side.

Today all that remains of the former crowning jewel of Buffalo's parkways is a tiny parcel between Northampton Street and the unused staircase leading to the former front entrance of the Buffalo Science Museum. Additional changes at the park followed. The fountain was replaced by basketball courts and a large group of spectator bleachers. The wading pool was partially filled, and transformed into circular concrete "spray pool", while it's grand, dimensions and grassy banks were retained. On January 25, 1977, the park was renamed in memory of Dr. Martin Luther King, Jr. After the renaming, an eight-foot bronze bust of Dr. King was placed in the park, near the park shelter house. The bust stands on a sloping mound, eight feet high at its center, facing a stone plaza shielded from the traffic of Fillmore Avenue by a screen of evergreen trees. In 1985, a major alteration to the Olmsted design of the park was proposed by the Buffalo Board of Education when it announced plans to construct the city's new Science Magnet School

¹ The Park originally called The Parade and now named for Dr. Martin Luther King, Jr. has a unique history among Buffalo's Olmsted parks, for it actually represents two distinct landscape designs by the firm, prepared for the Buffalo Board of Parks Commissioners some 25 years apart. The original design was for a park called the Parade, prepared in 1871 as part of Frederick Law Olmsted's plan for the Buffalo park system. Olmsted, in the first design prepared for an American city encompassing its entire park system, created three main parks and extended their influence throughout the community by a number of broad "parkways". The park, now known as Martin Luther King Park, in contrast to both "the Front" (now called Front Park) which featured breathtaking views of the Niagara River and was intended as a setting for formal civic displays, sporting events and music performances; and to "the Park" (now known as Delaware Park) with its spacious display of landscape art and planned to be a welcome respite from the pressures and confinement of the city; was first called "the Parade" and it occupied some of the highest ground in the city and was expected by Olmsted to become the site of military drills and large gatherings of people. A spectacular public hall, the Parade House, was designed by his partner, Calvert Vaux, for the Parade specifically to accommodate the large numbers of persons expected at such events. The wood structure had a marvelous two-story series of porches and galleries stretching 300 feet across. Its first floor housed a restaurant of 150' by 50' in size, and the second floor held a 250' long ballroom.

within the park, adjacent to the Science Museum. In 1986, the Board won the right to build the school. Opening in 1990, the Science Magnet School has received recognition for its design. At the same time, the school design has also been criticized for being completely in contrast with the Olmstedian historic buildings and artistic landscape design characteristics.

3. HISTORIC PARK RESTORATION MOVEMENT

The 1990s witnessed a decade that brought a completely brand-new, urban-park restoration movement in the United States to restore Olmsted parks in New York, Boston, and Portland. In Buffalo, the Olmsted Parks Conservancy developed the "Buffalo Greenways" program, which is a major initiative to restore the Olmsted Parks Systems urban parks environment. The first phase of the Olmsted Parks restoration project began in the Martin Luther King, Jr. Park (MLK) which is located in the heart of the African-American community in the Lower East Side of Buffalo. The park is the main open space setting for some of the worst neighborhoods in the city with the majority of the households below the poverty level.

MLK Park project began in the early 1990's, as community leaders and park neighbors succeeded in designating funds for park's Wading Pool restoration. Furthermore, the improvement of natural resources and reforestation effort at the MLK Park began with a massive community tree planting in April 2000. The realities of modern economies and of changing laws regarding safety, liability and water purity, however, blocked the successful return of Martin Luther King Park's Wading Pool to its former glory. A portion of the money was used in 1992 to establish new rectangular children's wading pool on the site of the former water plant basin and neglected ice rink, and to clean and partially refurbish the casino. However, final decisions on how best to restore or reinterpret the main pool have still proven to be elusive. Presently, efforts are underway to devise a new master plan to guide improvement and restoration efforts within the park.

4. THE BUFFALO GREENWAYS MASTER PLAN

Since 1999, the Center for Urban Studies at the University at Buffalo in partnership with the Buffalo Olmsted Parks Conservancy, and the City of Buffalo, have collaborated on a number of projects for Martin Luther King, Jr. Park and its adjacent neighborhoods. Most neighborhood plans are designed to help local officials identify specific projects that would make the Lower East Side neighborhoods located around the Olmsted parks competitive with other neighborhoods in the central city.

Developing the Greenways Master Plan included the following activities:

- To archive materials (maps, deeds, aerial and historic photos and drawings) from local and State sources in order to visually portray the story line of Olmsted Park systems and its change and development over time, 1871 to the present time;
- To use advanced information technologies to centralize existing databases of the urban parks, forests and greenways in Buffalo -Niagara region,
- To interpret the story of landscape change with an interdisciplinary group of professionals working to protect Olmstedian heritage (the fields of historic preservation, archaeology, historic architecture and planners);
- To develop educational resources to promote an environmental education market by celebrating the Olmstedian heritage in community outreach programs such as neighborhood green map programs by kids, landscape design workshops, or eco-tourism promotion projects.

5. FINDINGS: PROJECT'S STATUS REPORT

The methodology to develop a database of Buffalo Greenways included the use of GIS (geographical information systems) to centralize existing databases of the urban parks, forests and greenways in Buffalo-Niagara area (Slide Presentation Here).

- Database development in Excel
- Convert into DBF files, and load in Arc View 3.2
- Geo-coding using US Streets file and On-screen digitizing
- Convert into shape-files, e.g.
- Geo-processing (clipping, dissolving, merging)
- Creating desired layouts
- Transfer layout into images (jpeg)

GIS was also used to conduct a SWOT (Strength, weaknesses, opportunities, Threats) to survey neighborhood residents and park users about the parks and environmental issues of immediate importance to residents (Slide Presentation Here).

6. FUTURE PLANS

Our future effort to develop an educational outreach program as well as to disseminate information about the value of the Greenways historic landscapes in Buffalo

includes the following:

The initiative to develop an educational outreach program for Buffalo Olmsted Greenways included the submission of a grant proposal for funding to the National Urban and Community Forestry Advisory Council (2002 Challenge Cost-Share Grant Program). The proposed project seeks funding to conduct the following research programs:

- To publish (e.g., books, scholarly reports, websites, maps, etc.) a complete reference guide for sale to bookstores and libraries and to make it available online to not profit organizations for education, outreach and promotional purposes (e.g., cyberhood.com, geocities.com).
- To develop a website that provides links to Olmsted Parks and Greenways organizations and advocacy groups in cities around the country.
- To develop a model environmental design outreach program for youth and neighborhood block club members to foster civil engagement and community service in neighborhood adjacent to Olmsted parks.

The organization of the proposed project to conduct an outreach and charrette programs are listed below.

- To develop an internship program by recruiting and training UB graduate student interns and community leaders from block clubs and/or community-based organizations. Internship workshops will promote the value of Olmsted Greenways, community building, as well as trees and ecosystem restoration.
- To employ our interns to conduct community design charrettes specifically for youth in schools, and for block club members. A charrette consists of a five-day, intensive design and planning workshop in which competing teams, led by local and out of town design professionals, develop design proposals (creative but feasible solutions) and present them at a public review. The purpose of the charrette is to target youth and block club members to participate in design charrettes in attempt to foster civil engagement and community service. The idea is to galvanize a neighborhood to jump-start real projects (i.e., tree restoration, landscaping and plant education, eco-tourism promotion, etc), or generate a vision for a neighborhood that are connected to Olmsted parks.